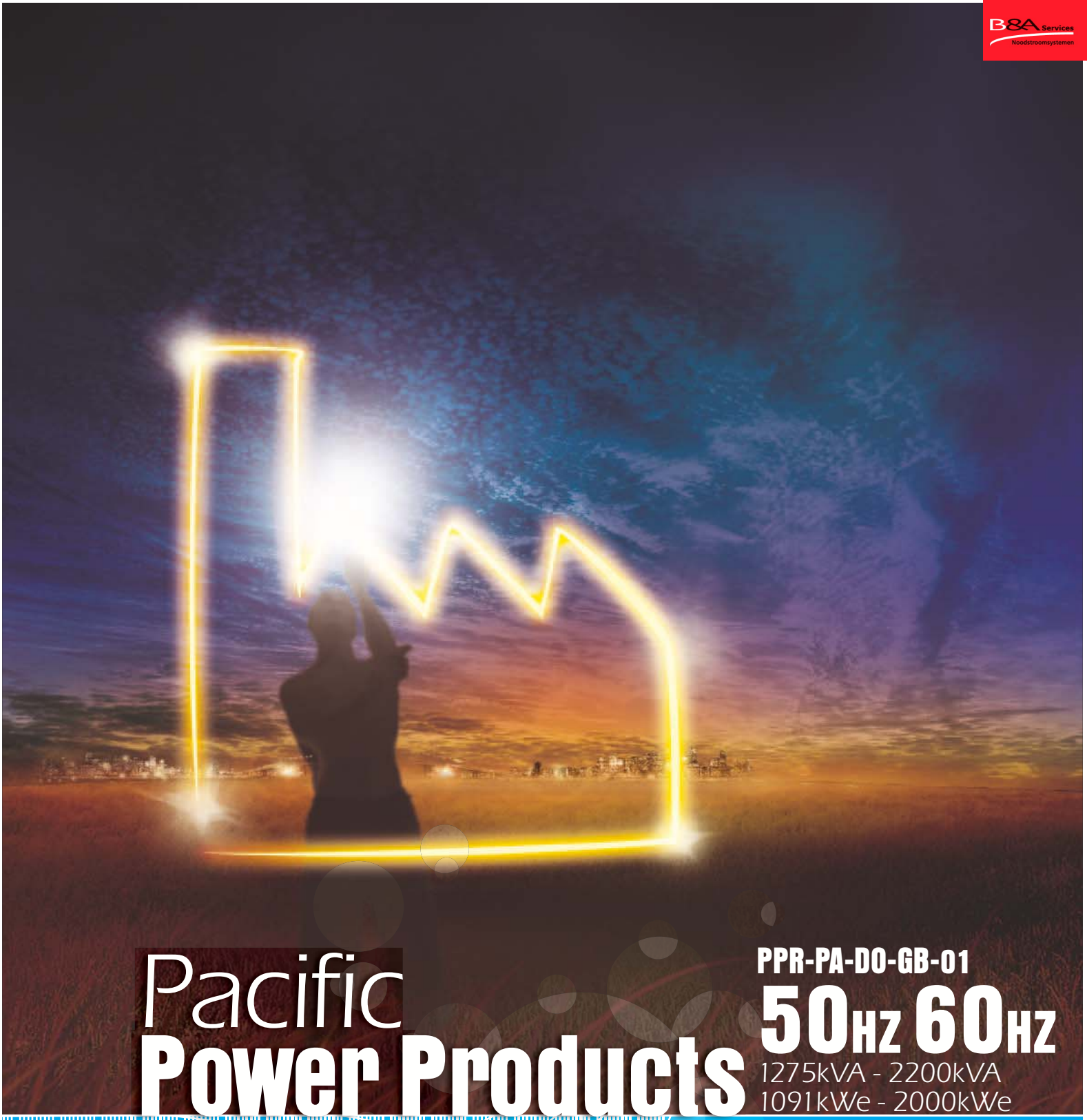


Pacific
Power Products

PPR-PA-DO-GB-01

50Hz 60Hz

1275kVA - 2200kVA
1091kWe - 2000kWe

SDMO®

Global Power Solution™

B&A Services
Noodstroomsystemen

A powerful response

SDMO is recognised as one of the top manufacturers of generating sets in the world. SDMO has channelled all its energy into designing a range which is both highly competitive and high-performance, the largest range available on the market. As a response to the increasingly precise nature of your energy requirements, which relate directly to the special traits of your particular industry, SDMO is devoting the majority of its resources to the continuous improvement of its range and services.
The result of a strategy focussed on a single industry: exacting professionalism which provides you with a reliable source of energy, complying with the strictest of standards. The pioneering mindset of its teams, and the mastery and flexibility of its production methods mean that SDMO is constantly innovating. The proximity of its distribution network and dynamism of its customer services policy enable SDMO to be a powerful force and provide the basis of the company's values.

SDMO, the source of energy for your comfort and safety.
SDMO, providing the energy that links mankind.

whatever the energy required

SDMO®

www.sdmo.com

Whether you require emergency power to be able to cope with potential power cuts (e.g. hospitals, shopping centres) or continuous power when conventional electrical grids are faulty (power plants), SDMO will be able to offer you performance products from a large range which meets all the requirements of different markets.
This range comprises 3 main categories:

- **Standard products** (Portable Power, Residential Power, Power Products and Rental Power)
- **Expertise and Services** (Power Solutions, Training, Spare Parts, Technical Assistance)
- **Related products** (NEXYS, TELYS, KERYS command/control units)

National coverage, international presence, "think globally, act locally"

In order that SDMO can continue to grow and expand into new markets, it relies on:

- a distribution network present in over 150 countries,
- 8 overseas subsidiaries,
- 4 offices,
- 7 sales offices and 3 regional HQs in France.

The reactivity of the company is based on its 5 storage platforms which, in co-operation with the subsidiaries, constitute an efficient means of operating.

The links forged with the Kolher group have strengthened SDMO's standing amongst its customers through a strategy of synergistic installations.

Market logic for greater reactivity

The production plants in Brest are organised according to product lines relating to the product range offered:

- a production site for Portable Power generating sets and for Power Products with lower power,
- a production site for Power Products, Rental Power and Residential Power ranges,
- a production site used for the production of special Power Solutions applications.

This overall synergy between industrial teams and sales and marketing departments reinforces the position of SDMO: prescription, reactivity, presence on the major markets.

SDMO
50HZ 60HZ

PACIFIC 50Hz range

SDMO PLUS PRODUCT

Generating sets in the PACIFIC range feature a winning combination: robust design and ease of use.

T1400

T1650C

TECHNICAL SPECIFICATIONS

50Hz RANGE

RANGE	Generating set specifications 400-230 V											
	GENERATING SETS (1)	kVA Cos 0.8		Cons 3/4 L/h	Engine specifications					Alternator	Open Version (4)	
		PRP (2)	ESP (3)		Engine type	cyl	Bore (mm)	Stroke (mm)	Cyl (L)	Type	Dimensions lxwxh (m)	Weights (5) (kg)
PACIFIC II	T1400	1275	1403	208	S12R-PTA	12	170	180	49.03	502 L7	4.33x2.00x2.37	9781
	T1540	1400	1540	218	S12R-PTA2	12	170	180	49.03	502 L8	4.42x2.00x2.37	10147
	T1650C	1500	1650	240	S12R-PTAW	12	170	180	49.03	502L8	5.90x2.20x2.51	12153
	T1900	1727	1900	266	S16R-PTA	16	170	180	65.37	512S55	5.50x2.29x2.48	12891
	T2100	1909	2100	304	S16R-PTA2	16	170	180	65.37	512M60	5.60x2.29x2.48	13314
	T2200	2000	2200	307.3	S16R-PTAA2	16	170	180	65.37	512M60	5.50x2.29x2.58	14371

(1)Also available in the following voltages: 415/240 V - 380/220 V

(2)PRP: Main power available continuously under variable load for an unlimited number of hours annually, in accordance with ISO 8528-1, an overload of 10% one hour every 12 hours is available in accordance with ISO 3046-1

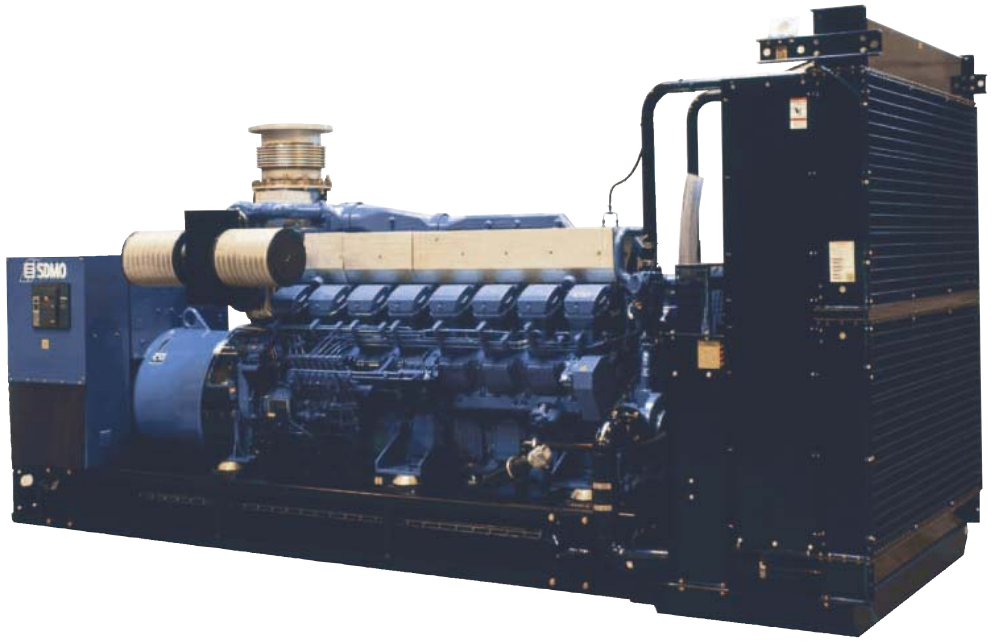
(3)ESP: Emergency Standby Power available for supplying emergency power in variable load applications in accordance with ISO 8528-1, no overload available for this service.

(4)The dimensions and weights apply to a generating set specified in the price list, without options

(5)Dry weight - without fuel

PACIFIC 60Hz range

50Hz 60Hz



T1800U

T2000U

TECHNICAL SPECIFICATIONS

60Hz RANGE

RANGE	Generating set specifications 480-277 V				Engine specifications					Alternator	Open Version [5]	
	GENERATING SETS [1]	kWe ISO 8528 [2] PRP [3]	kWe ISO 8528 [2] ESP [4]	Cons 3/4 L/h	Engine type	cyl	Bore (mm)	Stroke (mm)	Cyl (L)	Type	Dimension lxwxh (m)	Weights [6] (kg)
PACIFIC II	T1200U	1091	1200	229	S12R-PTA	12	170	180	49.03	501M7	4.33x2.00x2.37	9781
	T1350U	1228	1350	250	S12R-PTA2	12	170	180	49.03	501L8	4.42x2.00x2.37	10147
	T1600U	1455	1600	294	S16R-PTA	16	170	180	65.37	512S55	4.43x2.29x2.48	12891
	T1800U	1636	1800	346	S16R-PTA2	16	170	180	65.37	512S55	5.50x2.29x2.48	12991
	T2000U	1818	2000	357	S16R-PTAA2	16	170	18	65.37	512M60	5.50x2.29x2.58	14371

(1)Also available in the following voltages: 440 V - -254 V
(2)ISO 8528: powers specified in compliance with the legislation in force
(3)PRP: main power available continuously under variable load for an unlimited number of hours annually, in accordance with ISO 8528-1
(4)ESP: Emergency Standby Power available for supplying emergency power in variable load applications in accordance with ISO 8528-1, no overload available for this service
(5)The dimensions and weights apply to a generating set specified in the price list, without options
(6)Dry weight - without fuel

BASIC AND OPTIONS

EQUIPMENT

	Basic and options	PACIFIC II
engine	4 stroke water-cooled diesel engine	•
	Electronic control device	•
	Standard air filter	•
	Air filter with interchangeable cartridge 1	EN 02
	220/240 V preheating resistance (no control)	EN 20
alternator	IP 23 single bearing alternator, T° class =H, insulation class H/H	•
	Anti condensation resistor	AL 01
	Reinforced insulation	•
	Reinforced insulation and finish	AL 06
	Stator PTC sensor	AL 07
	Bearing PTC sensor	AL 08
	Stator PT 100 sensor	AL 09
	Bearing PT 100 sensor	AL 10
	Synchronising CT coupling + 3 function regulator	O(1)
	Oversized alternator	AO 001B
generating set	CE compliance of the control unit	•
	Mechanically welded base frame with antivibration dampers	•
	Supplied in colour RAL 9005/5007 (black/blue) delivered in shrink-wrap film	•
oil	Supplied with oil and coolant -30°C	•
	Automatic oil top up with tank	EN 18
	Oil drainage pump	•
cooling	Radiator core temperature of 50°C max with mechanical fan (2)	•
	Supplied without coolant	**FD 11**
	Protective grille for fan and rotating parts	•
	Protective grille for radiator core	EN 14
exhaust	Stainless steel compensators	•
	9 dB(A) silencer supplied separately	EN 07
	29 dB(A) silencer supplied separately	EN 08
	40 dB(A) silencer supplied separately	EN 09
starting	24 V charging alternator and starter motor	•
	Batteries with cables and battery support bracket	SO 001
	No battery and battery support bracket	•
	Battery isolating switch 2	EN 16
diesel	Generating set without fuel tank	•
	Separate fuel tank on 500 l container	FD 06
	Separate fuel tank on 1000 l container	FD 07
	Retention container level alarm	FD 14
	1m³/h pump auto kit 1	FD 08
	1m³/h pump auto kit 2	FD 09
	4m3/h pump auto kit 2	FD 10
	Diesel separator pre-filter	FD 05
accessories	User manual and commissioning guide (paper version) - French, English or Spanish	•
	User manual and commissioning guide (paper version) - French, English or Spanish (3) 3	AD 21
	User manual and commissioning guide (CD version) - French, English or Spanish 3	AD 22
	Engine parts catalogue (paper version) - English	AD 31
	Engine parts catalogue (CD version) - English	AD 32
	Engine repair and workshop manual (paper version) - English	AD 41
	Engine repair and workshop manual (CD version) - English	AD 42
	GENSERVICE replacement parts	O

1 EN02
Air filter with interchangeable cartridge

2 EN16
Battery isolating switch

3 AD21 and AD 22
User manual and commissioning guide

•	As standard
X	Not possible
O	Several possible options contact us
EN 21	Option code
FD 01	Free option

(1)	Synchronising CT coupling not required for Mics KERYS
(2)	Outdoor ambient temperature, reduce by approximately 7°C
(3)	Additional copy

The CONTENERGY concept

50HZ 60HZ

INTRODUCTION

CONTENERGY

The CONTENERGY concept offers a range of soundproof containers featuring a multitude of options

Thanks to their standard dimensions, **CONTENERGY** containers are easy to transport and, once on site, very simple to install: we would recommend that you install them outside the building on a concrete floor plate fitted with a tunnel for the cables and pipes.

Highly economical thanks to its cooling system, integrated sound traps and silencers, the **CONTENERGY** concept is completely self-contained, with a fuel capacity which enables it to operate immediately, without connection to an additional tank.

SDMO understands the many factors that have an influence on your equipment's operation. That is why our containers are designed to withstand harsh climate conditions.
Whether your equipment needs to operate in extreme cold or tropical environments, let us know your requirements - we are sure to have the solution you're looking for.

Trailers compliant with international standards are also available, allowing you to transform your generating set into a mobile unit (please contact us)

SDMO PLUS PRODUCT

The CONTENERGY design means that one simple connection is all it takes to get your power plant up and running.

SDMO
50HZ 60HZ

Conternergy

INTRODUCTION

CONTENERGY

CONTENERGY ISO

The dimensions of CONTENERGY ISO containers comply with CSC certification. They have been specially designed to withstand significant loads and pressures during transport without incurring damage, and can be shipped without any special constraints.
They are available in two sizes: 20 and 40 feet "High Cube".

CONTENERGY CIR

CIR type containers are specially designed with mobile and rental applications in mind. This highly compact model has a very low sound level and features an optional high volume tank, giving it up to 10 hours of autonomy.
This model is available as a 20 feet "High Cube"

SDMO PLUS PRODUIT

To protect the environment, our containers may be fitted with an optional retention container to hold all engine fluids.

Our containers comply with all current standards and regulations governing these products, including:

- **ISO 668**
- **NF90-005**
- **NF ISO 1496-1** (ISO 8323)

ISO20 (Silent)
1275kVA - 1540kVA

ISO40 (Silent)
1700kVA - 2100kVA

Generating set type	Engine	SILENT	SUPER SILENT	SILENT	SUPER SILENT
		85 - 87 dB(A)@1 m	82 - 84 dB(A)@1 m	79 - 82 dB(A)@7 m	77 - 79 dB(A)@7 m
T1400 - T1650C	S12R	ISO 20 Si	CIR 20 SSi	X	X
T1200U - T1350U	S12R	X	X	ISO 20 Si	CIR 20 SSi
T1900 - T2100	S16R	ISO 40 Si	X	X	X
T1600U - T1800U	S16R	X	X	ISO 40 Si	X

Standard containers

basic and options

50Hz 60Hz

BASIC AND OPTIONS

EQUIPMENT

	Basic and options	SILENT		SUPER SILENT
		ISO 20 Si	ISO 40 Si	CIR 20 SSi
Basic	Base member	•	•	•
	Starter motor, 24 V charging alternator	•	•	•
	Batteries filled with electrolyte	SO 001	SO 001	SO 001
	Standard air filter	•	•	•
	Oil drainage pump	•	•	•
Container specifications	Type of soundproofing	Si	Si	SSi
	High performance integrated 30 dB(A) silencer	•	•	•
	Floor	Bulb plate	Bulb plate	Bulb plate
	Number of doors	2	2	3
	Galvanised air outlet rain grille	CT 005	CT 005	•
	Safety lighting and shut-off valve	CT 007	CT 007	CT 007
	Exhaust outlet on bracket	**CT 011**	**CT 011**	**CT 011**
	RAL 9010 white painted finish for container	•	•	•
	Special colour from list	CT 016	CT 016	CT 016
	Power cable outlet on lower section	CT 015	CT 015	CT 015
Fuel	Retention container under container assembly	CT 014	CT 014	CT 014
	500 l base frame fuel tank	•	X	•
	Tank on container (500 l)	X	•	X
	Tank on container (2000 l)	X	X	CT 017
	External terminal block	CT 018	X	CT 018
	1m³/h pump auto kit 1	CT 008	CT 008	CT 008
	1m³/h pump auto kit 2	X	CT 009	X
	4m³/h pump auto kit 2	X	CT 010	X
Control units	CE compliance of the control unit	•	•	•
	MICS Telys control unit	CM 40	CM 40	CM 40
	MICS KERYS control unit	CA 600	CA 600	CA 600
Dimensions	Length (mm)	6058	12192	6058
	Width (mm)	2438	2438	2438
	Height (mm)	2896	2896	2896

• As standard X Not possible EN 01 Option code **CT 011** **Free option**

Three control units are available in our 650 to 3000 kVA range: the M80, the TELYS (previous pages) and the KERYS.
Your control unit can be chosen according to your equipment type and perfectly adapted to suit your needs with the options available. This modularity is made even easier by the fact that each optional peripheral device (air cooler, daily service tank, oil top-up, etc.) has its own protection.

For power plants, separate control boxes may be used in place of the control units: please do not hesitate to contact us.

INTRODUCTION

M80

The M80 control unit has a dual functionality. It can be used as a basic terminal block for connecting a control box and as an instrument panel with a direct read facility, with displays giving a global view of your generating set's basic parameters.

SPECIFICATIONS

		BASIC TERMINAL BLOCK	M 80
Measurements	Tachometer (54 mm)	X	•
Engine parameters	Oil pressure gauge	X	•
	Coolant temperature indicator	X	•
	Oil temperature indicator	X	O
Controls	Emergency stop	•	•
Miscellaneous	CE compliant	•	•
	Customer connection terminal block	•	•

• As standard X Not available O Options

control units

INTRODUCTION

TELYS

Telys, SDMO's flagship product, integrates new options and offers improved ergonomics and a more user-friendly design. It is even more straightforward, with the emphasis on communication (USB connections, PC connections, control software and remote operation).

Its design, inspired by the NEXYS, has reduced the number of buttons to offer you simplicity when operating your generating set. It also offers new functions:

- Integrated maintenance monitoring programme (on-screen display of required maintenance operations)
- On-board service tool to guide the user when a warning or fault is detected
- Viewing and remote control functions with option to send(b) an E-mail, text message or fax in the event of a warning or a fault
- Card tropicalisation possible to compensate for extremely humid conditions (b)
- Compliance with numerous legal and regulatory requirements (EC)
- Screen with contrast which adjusts to all types of light

(b) As an option

Display screen composed of 4 zones:

ZONE 1: Operation mode (generating set running/auto/manual)

ZONE 2: Display of functions via pictograms

ZONE 3: Display of mechanical and electrical values and the associated measurements

ZONE 4: Operating messages and parameter settings menu

SDMO PLUS PRODUCT

The TELYS can now be fitted with display and remote control options, allowing the generating set to be actively monitored and managed for increased safety.

TELYS THE FIGURES

Operation at -20°C to +60°C
Humidity: 95% to 45°, 70% to 50°C, 50% to 60°C
5 language options, numerous languages
Option to connect up to 5 additional I/O modules (4 inputs/6 outputs) (b)

For more information on the TELYS, please refer to the TELYS documentation (TEL/FR-2007) or speak to your SDMO sales representative

INTRODUCTION

KERYS TACTIL

The KERYS tactil command and control unit has been designed to fulfil the specific requirements of professionals in terms of managing and monitoring generating sets. It therefore offers a wide range of functions.
This control unit is fitted as standard to all generating sets designed to be used for coupling and is offered as an option across the rest of our range.
The KERYS tactil can be built into the central console, fitted directly on the generating set, or in a separate cabinet, to fulfil all the requirements for low and high output power plants.

AUTOMATIC CONTROLLER DEDICATED TO GENERATING SET APPLICATIONS
- Choice of a range of basic standard configurations.
- Additional logics can be added without any external tools.
- Library of functional modules.

FAULT FINDING HELP
- Validation of operation by simulation.
- Display of the status of variables.
- Breakdown guide with keyword search.

ASSISTANCE AND MAINTENANCE
- Emails sent automatically for maintenance requests, and for the appearance of alarms or faults.
- Log of operations carried out (maintenance or breakdown).

LOAD IMPACTS
Improvement of generating set performance during application of a significant load.

GRAPHS AND ARCHIVING OF ELECTRICAL AND MECHANICAL PARAMETERS
Adjustable sampling and configurable triggering criteria.

COMPLIANCE WITH INTERNATIONAL STANDARDS
The KERYS tactil has undergone very stringent tests in independent laboratories (climatic tests, electromagnetic compatibility tests, vibration tests, etc.)
It is CE compliant.

INTRODUCTION

MMI (MAN-MACHINE INTERFACE)

Man-machine interface module
The man-machine interface is available with a colour screen and a 7-inch touch panel. The MMI module is equipped with all the keys required to ensure the generating set can be controlled and the system configured, thanks to a screen navigator and an alphanumeric keypad.

Display screen:
7.4 inch LCD TFT display
Detailed colour display
Touch screen
Dimensions: 154 x 86 mm

Alphanumeric keypad
For setting parameters, navigation and direct access to screens

Control keypad with display LEDs
- Manual mode selection
- Stop mode selection
- Automatic mode selection
- Generating set circuit breaker open/close
- Test activation/deactivation
- Grid circuit breaker open/close
- LED test
- Horn off
- Clear faults

Arrow keys
with operation LEDs

control units

FUNCTIONS

GENERATING SET AUTOMATIC CONTROL

- Single generating set or as part of power plant
- Operation in HT (high tension) or LT (low tension)
- Normal/Emergency operation
- Operation in permanent or temporary grid coupling without cut-out:
  - Upon return to grid power,
  - During peak shaving,
  - During trials or tests.
- Inverted emergency operation
- Power production unit
- Cogeneration

MEASUREMENTS AND DISPLAYS

Mechanical:

- Temperatures,
- Pressures and levels, depending on engine configuration

Electrical:

- Voltages,
- Currents,
- Frequency and power,
- Power factor,
- Outputs,
- Mechanical and electrical metering.

SAFETY FEATURES

Mechanical:

- Speed,
- Alarms,
- Engine safety,
- Special customer features.

Electrical:

- Currents,
- Voltages,
- Outputs,
- Frequency,
- Micro cut-outs.

COMMUNICATION

- Built-in web server
- User-friendly man-machine interface
- 5 basic languages (French, English, Spanish, Portuguese, German), one of which is interchangeable (please consult us)
- Ethernet Port
- Dialogue with all engines equipped with a built-in ECU
- RS 485 port for Modbus RTU
- RS 232 port
- Option of PSTN communication (Public Switched Telephone Network)

CONTROLS

Mechanical:

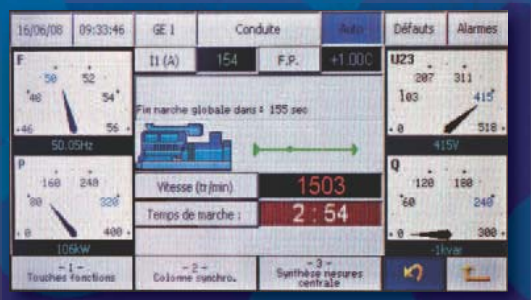
- Speed,
- Synchronisation,
- Coupling,
- Distribution or setting of grid or generating set active power,
- Wattmetric programming

Electrical:

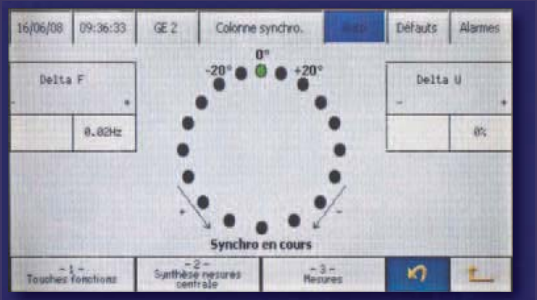
- Voltage,
- Voltage equalising,
- Distribution or setting of grid or generating set reactive power,
- Adjustment of the grid or generating set power factor (cos Phi).

Other physical values...

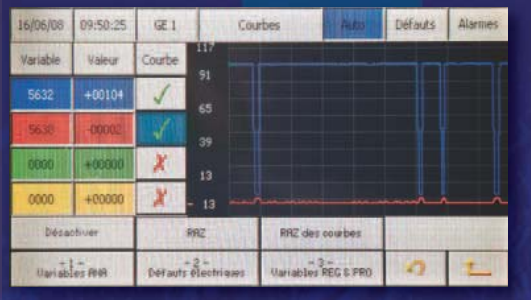
DISPLAY SCREENS



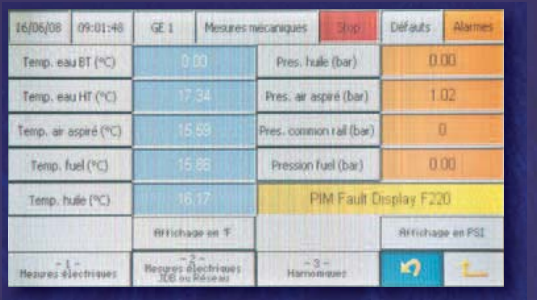
1- Operation screen



2- Synchronisation screen



3- Graph display



4- Mechanical measurements screen

* For more detailed information, refer to the KERYS documentation or contact your SDMO sales representative.

SDMO

50HZ 60HZ

power modules

SPECIFICATIONS

AIPR

Each generating set may be supplied with a protection unit.
This unit is mounted on the chassis with connection cables to the alternator. It is located on the right-hand side of the generating set.

Rating		1250 A	1600 A	2000 A	2500 A	3600 A
With manual control on the front						
Fixed 3-pole power circuit breaker		O	O	O	O	O
Fixed 4-pole power circuit breaker		O	O	O	O	O
Motorised control option (1)						
With 3 or 4-pole open circuit breaker only		O	O	O	O	O
Voltage 208-440 V		•	•	•	•	•
Auxiliary unit option (2)		O	O	O	O	O
Power connection bus bars		•	•	•	•	•
Remote control terminal block		•	•	•	•	•
Protection index		IP 207	IP 207	IP 207	IP 207	IP 207
1 DIMENSIONS (without air cooler unit)	height (mm)	1260	1260	1260	1260	1260
	width (mm)	683	683	683	683	683
	depth (mm)	365	365	365	365	365
2 DIMENSIONS (with air cooler unit)	height (mm)	1664	1664	1664	1664	1664
	width (mm)	683	683	683	683	683
	depth (mm)	365	365	365	365	365
DIMENSIONS (with connection unit on upper section)	height (mm)	1883	1883	1883	1883	1883
	width (mm)	683	683	683	683	683
	depth (mm)	365	365	365	365	365

(1) The motorised control includes a closure solenoid valve, a shunt trip coil and an AC motor
(2) The auxiliary unit option is mounted above the main unit. It is used for the power connections of generating set auxiliaries, e.g.:
- air cooler output
- fuel pump unit output

• Standard
O Option

1 connection unit without air cooler unit

2 connection unit with air cooler unit
(with integrated air cooler unit on the lower section if necessary)

INTRODUCTION

NORMAL/EMERGENCY SWITCH

SDMO provides a complete range of separate Normal/Emergency switches. There are a large number of benefits to our technology, both in terms of cost and of ease of installation. The design of the control units and boxes enables even cables with large cross sections to be easily connected. The front panel of the unit no longer opens on just one side, like a conventional control unit, but on three sides, allowing total access to all the connections for the power equipment and terminal blocks. All our control units are either three-pole or four-pole.

		800A	1000A	1600A	2000A(1)	2500A(1)	3150A(1)
Voltage	208-440V	•	•	•	•	•	•
Changeover	By changeover switches	•	•	•	•	•	•
Dimensions	Heights (mm)	1000	1000	1000	1800(2)	1800(2)	1800(2)
	Width (mm)	800	800	800	1000	1000	1000
	Depth (mm)	500	500	500	800	800	800

(1) Integrated into a floor-mounted control box

(2) On a base plate h=200 mm, i.e. control box of height 1600 + 200

INTRODUCTION

TSI

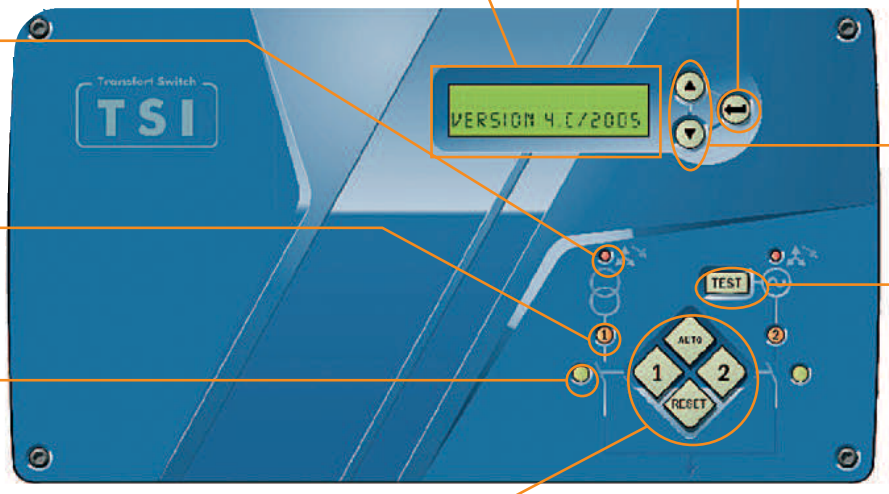
Both innovative and original in design, the TSI is perfectly suited to applications where the transfer of a main source to a replacement source is crucial for the running of your installations.
Straightforward and easy to use, the special feature of this module is that it is automatically configured when voltage is provided from the grid side.
By simply pressing the AUTO key, the following parameters are configured: grid voltage, voltage min/max thresholds, type of use, frequency min/max thresholds.
Electronic switching of the power source means that the unit can be continuously self-supplied.

Screen
with integrated backlighting, with 2 lines of 16 characters

Confirm key

Navigation and selection keys
used for scrolling through the different electrical value display screens and for configuring all the module parameters to the customer specifications

Rotophase LED
Indicates the phase rotation direction



Source Status LED
Three-colour LED showing the status of the source

Test
used to simulate generating set starting, including the possibility of a changeover sequence

Position LED
LED showing the closed position of the switch or changeover switch

Operating keys
Auto key: automatic module configuration for automatic operation during mains cut-off or voltage drop

Key 1: Forced source 1 operation
Key 2: Forced source 2 operation
Reset key: clears the fault display

SPECIFICATIONS

TSI MODULE

2 lines on the screen, enabling simultaneous display of the voltage on the grid side and the generating set side. The same applies to the frequency.
6 LEDs provide instantaneous information on the position status of both of the two 2 sources, along with any alarms and faults which arise.
The TSI also offers 3 configurable inputs and 2 outputs, as an option.

ADDITIONAL SPECIFICATIONS (please consult us)

Communication
In addition to a wire connection enabling dry contact remote starting with all SDMO command/control units (TELYS, KERYS), the TSI module also has a CAN bus which enables it to communicate with the KERYS.
This connection allows all information relating to the grid and the starting order following a variation in voltage to be sent to the KERYS.

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